

WHAT IS CLAIMED IS:

1. A method for transferring data in a network device, comprising:
receiving a data frame;
generating first data relating to the data frame;
transferring the first data to a register;
generating second data relating to the data frame; and
preventing a transfer of new first data relating to another data frame to the register
prior to transferring the second data to the register.
2. The method of claim 1 wherein the first data includes priority data.
3. The method of claim 1 wherein the second data includes forwarding information.
4. The method of claim 1 wherein the preventing includes:
detecting the transfer of the second data to the register.
5. The method of claim 1 further comprising:
permitting the new first data to be transferred after the second data has been
transferred to the register.
6. The method of claim 5 wherein the permitting includes:
transmitting a signal indicating that the new first data may be transferred.
7. The method of claim 6 further comprising:
delaying the transmitting of the signal for a predetermined period of time.
8. A network device comprising:
a port filter configured to receive a data frame and generate first data relating to the
data frame;

a first logic device configured to generate second data for the received data frame;

5 and

a second logic device configured to receive the first data, determine whether the second data has been received, and prevent a transfer of different first data relating to a different data frame from the port filter when the second data has not been received.

9. The network device of claim 8 wherein the second logic device is further configured to:

permit the transfer of the different first data when the second data has been received.

10. The network device of claim 9 wherein, when permitting the transfer of the different first data, the second logic is configured to:

transmit a signal to the port filter when the second data has been received.

11. The network device of claim 10 wherein the second logic device is further configured to:

delay the transmission of the signal for a predetermined period of time.

12. The network device of claim 8 wherein the first logic device includes a decision-making engine and the second logic device includes a port vector queue.

13. The network device of claim 8 wherein the second logic device comprises:
a register associated with the port filter, the register being configured to store the first and second data.

14. The network device of claim 13 wherein the second logic device is further configured to:

merge the first and second data in the register.

15. A system for transmitting data in a network device, comprising:
- a plurality of receiver modules configured to receive packets and generate first data relating to the packets;
 - first logic configured to generate second data for the packets;
- 5 a plurality of registers corresponding to the receiver modules and configured to store the first and second data for the packets received by the corresponding receiver modules; and
- second logic configured to determine, for each of the registers, whether first and second data for a received packet has been stored and prevent a transfer of different first or second data for a subsequently-received packet prior to the first and second data being stored.
16. The system of claim 15 wherein, when preventing the transfer of different first or second data, the second logic is configured to:
- permit transfer of the different first or second data after the first and second data has been stored.
17. The system of claim 16 wherein, when permitting the transfer of the different first or second data, the second logic is configured to:
- transmit a signal to one of the plurality of receiver modules or the first logic.
18. The system of claim 17 wherein, when transmitting the signal, the second logic is configured to:
- delay the transmission for a predetermined period of time.
19. The system of claim 15 wherein the first logic includes a forwarding engine and the second data comprises data forwarding information identifying at least one output port.
20. The system of claim 15 wherein each of the plurality of receiver modules includes a port filter and the first data comprises priority information identifying a priority associated with the packet.